WATER, AIR AND SOIL POLLUTION / *Volume 99 Nos. 1–4 October 1997*

Preface
Acknowledgements

Conference Summary
R.D. EVANS, A. PROVINI, J.S. MATTICE, B.T. HART and J. WISNIEWSKI / Interactions Between Sediments and Water: Summary of the 7th International Symposium 1–7

Sediment / Water Dynamics
D.E. WALLING and W. HE / Investigating Spatial Patterns of Overbank Sedimentation on River Floodplains 9–20
R. JEPSEN, J. ROBERTS and W. LICK / Effects of Bulk Density on Sediment Erosion Rates 21–31
T.G. MILLIGAN and D.H. LORING / The Effect of Flocculation on the Size Distributions of Bottom Sediment in Coastal Inlets: Implications for Contaminant Transport 33–42
I.G. DROPPO, G.G. LEPPARD, D.T. FLANNIGAN and S.N. LISS / The Freshwater Floc: A Functional Relationship of Water and Organic and Inorganic Floc Constituents Affecting Suspended Sediment Properties 43–53
C.H. TSAI and J.Q. HU / Flocculation of Particles by Fluid Shear in Buffered Suspensions 55–62
P.M. STONE and D.E. WALLING / Particle Size Selectivity Considerations in Suspended Sediment Budget Investigations 63–70
Q. HE and D.E. WALLING / Spatial Variability of the Particle Size Composition of Overbank Floodplain Deposits 71–80
C. YEN and Y. LIN KEY / Variations of Bed Surface Sediment Size in a Channel Bend 81–88
M. STONE and B.G. KRISHNAPPAN / Transport Characteristics of Tile-Drain Sediments From an Agricultural Watershed 89–103
U. KERN and B. WESTRICH / Sediment Budget Analysis for River Reservoirs 105–112
A.I. PACKMAN, N.H. BROOKS and J.J. MORGAN / Experimental Techniques for Laboratory Investigation of Clay Colloid Transport and Filtration in a Stream with a Sand Bed 113–122
B. SHTEINMAN, W. ECKERT, S. KAGANOWSKY and T. ZOHARY / Seiche-induced Resuspension Lake Kinneret: A Fluorescent Tracer Experiment 123–131
B.J. EADIE / Probing Particle Processes in Lake Michigan Using Sediment Traps 133–139
M.G. LYONS / The Dynamics of Suspended Sediment Transport in the Ribble Estuary 141–148
S.C. PAULSEN and E. J. LIST / A Study of Transport and Mixing in Natural Waters Using ICP-MS: Water-Particle Interactions 149–156
D.C. HOYAL, M.L. BURSIK, J.F. ATKINSON and J.V. DEPINTO / Filtration Enhances Suspended Sediment Deposition From Surface Water to Granular Permeable Beds 157–171
H. CAPART, H.-H. LIU, X. VAN CROMBRUGGHE and D.-L.YOUNG / Digital Imaging Characteristics of the Kinematics of Water-Sediment Interaction 173–177
T.N. ANGELIDIS / Comparison of Sediment Pore Water Sampling for Specific Parameters Using Two Techniques 179–185

Sediment / Contaminant Interactions
J.S. MATTICE, D.B. PORCELLA and R.W. BROCKSEN / Sediment-Water Interactions Affect Assessments of Metals Discharges at Electric Utilities 187–199
M.J. MADRUGA and A. CREMERS / Effect of Ionic Composition and Temperature on the Radiocaesium Fixation in Freshwater Sediments 201–208
J. CLIFTON, P. McDONALD, A. PLATER and F. OLDFIELD / Relationship Between Radionuclide Content and Textural Properties in Irish Sea Intertidal Sediments 209–216
G.E.M. HALL and P. PELCHAT / Comparison of Two Reagents, Sodium Pyrophosphate and Sodium Hydroxide, in the Extraction of Labile Metal Organic Complexes 217–223

W. LICK, Z. CHRONEER and V. RAPAKA / Modeling the Dynamics of the Sorption of Hydrophobic Organic Chemicals to Suspended Sediments 225–235
E. FATTORE, E. BENFENATI, G. MARIANI, E. COOLS, G. VEZZOLI and R. FANELLI / Analysis of Organic Micropollutants in Sediment Samples of the Venice Lagoon, Italy 237–244
L. GUZZELLA / PCBs and Organochlorine Pesticides in Lake Orta (Northern Italy) Sediments 245–254
E. ARGESE, E. RAMIERI, C. BETTIOL, B. PAVONI, E. CHIOZZOTTO and A. SFRISO / Pollutant Exchange at the Water/Sediment Interface in the Venice Canals 255–263

Role Of Sediments In Element Cycles

K.K. CHRISTENSEN / Differences in Iron, Manganese and Phosphorus Binding in Freshwater Sediment Vegetated with *Littorella Uniflora* and Benthic Algae 265–273
G.M. PETERS, W.A. MAHER, J.P. BARFORD and V.G. GOMES / Selenium Associations in Estuarine Sediments: Redox Effects 275–282
A. JONSSON / Fe and Al Sedimentation and their Importance as Carriers For P, N and C in a Large Humic Lake in Northern Sweden 283–295
M. CAMUSSO, S. CRESCENZIO, W. MARTINOTTI, M. PETTINE and R. PAGNOTTA / Behaviour of Co, Fe, Mn and Ni in the Po Estuary (Italy) 297–304
A. BERTUZZI, J. FAGANELI, C. WELKER and A. BRAMBATI / Benthic Fluxes of Dissolved Inorganic Carbon, Nutrients and Oxygen in the Gulf of Trieste (Northern Adriatic) 305–314
S. LOJEN, N. OGRINC and T. DOLENEC / Carbon and Nitrogen Stable Isotope Fractionation in the Sediment Of Lake Bled (Slovenia) 315–323
W. MARTINOTTI, M. CAMUSSO, L. GUZZI, L. PATROLECCO and M. PETTINE / C, N and Their Stable Isotopes in Suspended and Sedimented Matter from the Po Estuary (Italy) 325–332
N. OGRINC, S. LOJEN and J. FAGANELI / The Sources of Dissolved Inorganic Carbon in Pore Waters of Lacustrine Sediment 333–341
A. PUSCEDDU, G. SARÀ, A. MAZZOLA and M. FABIANO / Relationships Between Suspended and Sediment Organic Matter in a Semi-Enclosed Marine System: The Stagnone Di Marsala Sound (Western Sicily) 343–352
L. AIROLDI, A.J. SOUTHWARD, I. NICCOLAI and F. CINELLI / Sources and Pathways of Particulate Organic Carbon in a Submarine Cave With Sulphur Water Springs 353–362
G. GIORDANI, R. AZZONI, M. BARTOLI and P. VIAROLI / Seasonal Variations of Sulphate Reduction Rates, Sulphur Pools and Iron Availability in the Sediment of a Dystrophic Lagoon (Sacca Di Goro, Italy) 363–371
P.J. DILLON, H.E. EVANS and R. GIRARD / Hypolimnetic Alkalinity Generation in Two Dilute, Oligotrophic Lakes in Ontario, Canada 373–380
F.C. WU, H.R. QING, G.J. WAN, D.G. TANG, R.G. HUANG and Y.R. CAI / Geochemistry of HCO_3^- at the Sediment-Water Interface of Lakes from the Southwestern Chinese Plateau 381–389
A. KLEEBERG / Interactions Between Benthic Phosphorus Release and Sulfur Cycling in Lake Scharmützelsee (Germany) 391–399
W. ECKERT, A. NISHRI and R. PARPAROVA / Factors Regulating the Flux of Phosphate at the Sediment-Water Interface of a Subtropical Calcareous Lake: A Simulation Study With Intact Sediment Cores 401–409
P.D. SCARLATOS / Experiments on Water-Sediment Nutrient Partitioning Under Turbulent, Shear and Diffusive Conditions 411–425
T. GONSIORCZYK, P. CASPER and R. KOSCHEL / Variations of Phosphorus Release from Sediments in Stratified Lakes 427–434
B. CERMELJ, A. BERTUZZI and J. FAGANELI / Modelling of Pore Water Nutrient Distribution and Benthic Fluxes in Shallow Coastal Waters (Gulf of Trieste, Northern Adriatic) 435–443
M. FEIBICKE / Impact of Nitrate Addition on Phosphorus Availability in Sediment and Water Column and on Plankton Biomass - Experimental Field Study in the Shallow Brackish Schlei Fjord (Western Baltic, Germany) 445–456

M. RZEPECKI / Bottom Sediments in a Humic Lake with Artificially Increased Calcium Content: Sink or Source for Phosphorus? 457–464
B. KRONVANG, R. GRANT and A.L. LAUBEL / Sediment and Phosphorus Export from a Lowland Catchment: Quantification of Sources 465–476
J. LEHTORANTA, H. PITKÄNEN and O. SANDMAN / Sediment Accumulation of Nutrients (N, P) in the Eastern Gulf Of Finland (Baltic Sea) 477–486
T.H. DONNELLY, M. R. GRACE and B. T. HART / Algal Blooms in The Darling-Barwon River, Australia 487–496
I. OSTROVSKY, D. WYNNE, T. BERGSTEIN-BEN DAN, A. NISHRI, H. LI, Y.Z. YACOBI, N. KOREN, and R. PARPAROVA / Spatial Distributions of Biogeochemical Parameters in Surface Sediments 497–505
P. PAIVA, J.-M. JOUANNEAU, F. ARAÚJO, O. WEBER, A. RODRIGUES and J.M.A. DIAS / Elemental Distribution in a Sedimentary Deposit on the Shelf off the Tagus Estuary (Portugal) 507–514
W. PETERSEN, E. WILLER and C. WILLIAMOWSKI / Remobilization of Trace Elements from Polluted Anoxic Sediments After Resuspension in Oxic Water 515–522
G. TARTARI and G. BIASCI / Trophic Status and Lake Sedimentation Fluxes 523–531
P. VIAROLI, M. BARTOLI, I. FUMAGALLI and G. GIORDANI / Relationship Between Benthic Fluxes and Macrophyte Cover in a Shallow Brackish Lagoon 533–540
F. SPAGNOLI and M.C. BERGAMINI / Water-Sediment Exchange of Nutrients During Early Diagenesis and Resuspension of Anoxic Sediments from the Northern Adriatic Sea Shelf 541–556
G. MATTEUCCI and F. FRASCARI / Fluxes of Suspended Materials in the North Adriatic Sea (Po Prodelta Area) 557–572

Use Of Sediments As Historical Indicators

P.G. APPLEBY / Sediment Records of Fallout Radionuclides and Their Application to Studies of Sediment-Water Interactions 573–585
T. MIESZCZANKIN / A Spacio-Temporal Pattern of Pollen Sedimentation in a Dimictic Lake with Laminated Sediments 587–592
C.A. BELIS / Palaeoenvironmental Reconstruction Of Lago Di Albano (Central Italy) During The Late Pleistocene Using Fossil Ostracod Assemblages 593–600
A. LAMI, P. GUILIZZONI, D.B. RYVES, V.J. JONES, A. MARCHETTO, R.W. BATTARBEE, C.A. BELIS, R. BETTINETTI, M. MANCA, P. COMOLI, A. NOCENTINI and L. LANGONE / A Late Glacial and Holocene Record of Biological and Environmental Changes from the Crater Lake Albano, Central Italy: An Interdisciplinary European Project (Paliclas) 601–613

Sediment / Organism Interactions

G. ADAMI, F. ALEFFI, P. BARBIERI, A. FAVRETTO, S. PREDONZANI and E. REISENHOFER / Bivalves and Heavy Metals in Polluted Sediments: A Chemometric Approach 615–622
J.P. COAKLEY, G.R. BROWN, S.E. IOANNOU and M.N. CHARLTON / Colonization Patterns and Densities of Zebra Mussel *Dreissena* in Muddy Offshore Sediments of Western Lake Erie, Canada 623–632
A. BINELLI, A. PROVINI and S. GALASSI / Trophic Modifications in Lake Como (N. Italy) Caused by the Zebra Mussel (*Dreissena Polymorpha*) 633–640
B.T. HARGRAVE, G.A. PHILLIPS, L.I. DOUCETTE, M.J. WHITE, T.G. MILLIGAN, D.J. WILDISH and R.E. CRANSTON / Assessing Benthic Impacts of Organic Enrichment From Marine Aquaculture 641–650
M. SCHORER and M. EISELE / Accumulation of Inorganic and Organic Pollutants by Biofilms in the Aquatic Environment 651–659
B. MONTUELLE, X. LATOUR, B. VOLAT and M. LAFONT / Use of a 6-Steps Microcosm for Studying a Wastewater Discharge in a Freshwater Ecosystem: A Multidisciplinary Study 661–669

O. HADAS and R. PINKAS / Arylsulfatase and Alkaline Phosphatase (Apase) Activity in Sediments of Lake Kinneret, Israel 671–679

S. HÖSS, M. HAITZER, W. TRAUNSPURGER, H. GRATZER, W. AHLF and C. STEINBERG / Influence of Particle Size Distribution and Content of Organic Matter on the Toxicity of Copper in Sediment Bioassays using *Caenorhabditis elegans* (Nematoda) 681–688

P. ALCORLO, P. DÍAZ, J. LACALLE, A. BALTANÁS, M. FLORÍN, M.C. GUERRERO and C. MONTES / Sediment Features, Primary Producers and Food Web Structure in Two Shallow Temporary Lakes (Monegros, Spain) 689–695

Studies Of Remote Areas

M. RAVANELLI, O. TUBERTINI, S. VALCHER and W. MARTINOTTI / Heavy Metal Distribution in Sediment Cores from Western Ross Sea (Antarctica) 697–704

L. LANGONE, M. FRIGNANI, J.K. COCHRAN and M. RAVAIOLI / Scavenging Processes and Export Fluxes Close to a Retreating Seasonal Ice Margin (Ross Sea, Antarctica) 705–715

S. GALASSI, S. VALSECCHI and G. A. TARTARI / The Distribution of PCB's and Chlorinated Pesticides in Two Connected Himalayan Lakes 717–725

List Of Symposium Participants 727–732

Subject Index 733–736

Author Index 737–739